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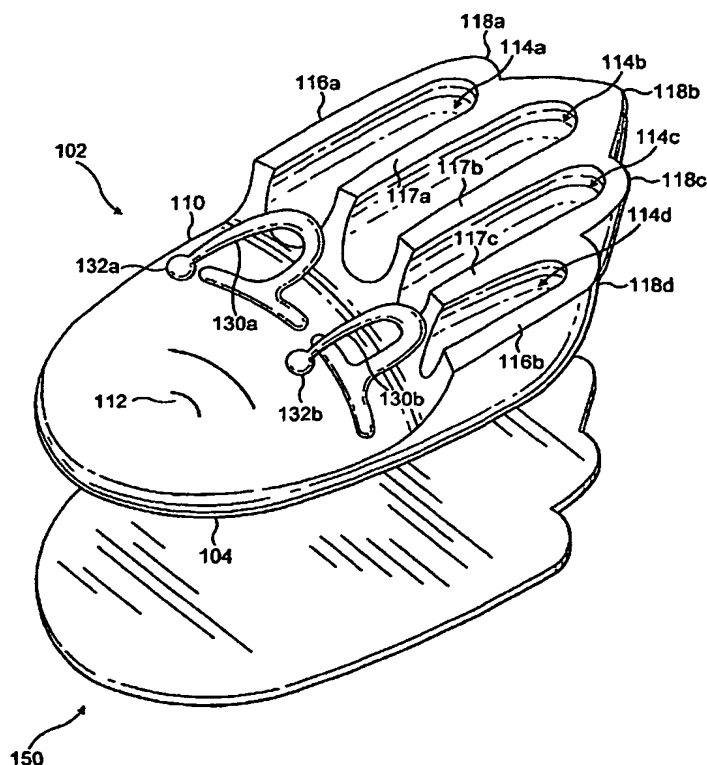
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[Continued on next page]

(54) Title: HAND-UTILITY INTERFACE



(57) Abstract: There is provided a hand-utility interface for use in protecting a user's and during utility tasks. The interface comprises a foamed block body having a plurality of finger-receiving channels defined therein; and palm support means for securing said interface to the palm of a user's hand. The finger-receiving channels snugly receive the fingers of said user's hand such that in use, the palm support means and finger-receiving channels secure the interface to the user's hand. The interface may be used with various utility attachments including those in the form of wipes. A cleaning cloth is also provided.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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# INTERNATIONAL SEARCH REPORT

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**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 A47L1/15

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A47L A47K A41D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 108 817 A (KOSTELAC TIMOTHY J) 29 August 2000 (2000-08-29) column 2, line 1 - line 40; figure 3	1-3
Y	-----	4-9
X	US 6 305 047 B1 (YOUNG III WILLIAM C ET AL) 23 October 2001 (2001-10-23) column 1, line 59 - column 2, line 15; figures 1,2	1-3
X	----- US 4 030 414 A (MCGUIRE JAMES T) 21 June 1977 (1977-06-21) column 2, line 10 - line 48; figure 3 ----- -/--	1-3

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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# INTERNATIONAL SEARCH REPORT

International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 02/087406 A (POWELL MICHAEL CHARLTON) 7 November 2002 (2002-11-07) cited in the application page 3, line 9 - page 4, line 16; claims; figures 1,2	4-6,8,9
Y	----- US 5 878 436 A (JONES ROBERT B) 9 March 1999 (1999-03-09) column 4, line 28 - line 32; figure 1 -----	7

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2004/004143

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-9

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9

Hand-utility interface with finger-receiving channels  
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2. claim: 10

Cleaning cloth with reservoir for cleaning media  
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6108817	A	29-08-2000	NONE	
US 6305047	B1	23-10-2001	NONE	
US 4030414	A	21-06-1977	NONE	
WO 02087406	A	07-11-2002	CA 2445950 A1 WO 02087406 A1 EP 1383412 A1 JP 2004528902 T US 2004148675 A1	07-11-2002 07-11-2002 28-01-2004 24-09-2004 05-08-2004
US 5878436	A	09-03-1999	NONE	